

WHAT IS CLAIMED IS:

1. In a wireless environment, a method for efficiently transmitting digital images from a wireless device, the method comprising:

5 establishing a data call from the wireless device to a wireless carrier for uploading digital images;

transmitting information pertaining to a digital image to be uploaded from the wireless device to the wireless carrier, said digital image being arranged into individual compartments capable of separate transmission;

10 collecting, at a spooler, the information being transmitted for said digital image; and

15 once the spooler has collected sufficient information to define at least one individual compartment of said digital image, transmitting said at least one compartment from the spooler to a target computer.

2. The method of claim 1, wherein said step of establishing a data call from the wireless device to a wireless carrier for uploading digital images includes:

20 connecting a digital camera with wireless connectivity to a cellular phone device; and

placing a data call through the cellular phone device.

25 3. The method of claim 1, wherein said step of transmitting information includes:

transmitting an individual compartment of the digital image.

4. The method of claim 1, wherein said step of transmitting said at least one compartment from the spooler to a target computer includes:

25 transmitting said at least one compartment to a server infrastructure that includes at least one Web server.

5           5. The method of claim 1, further comprising:  
dropping the data call; and  
upon re-establishing another data call, resuming transmission of said digital  
image without retransmitting the entire digital image.

10           6. The method of claim 5, wherein the wireless device resumes transmission  
of said digital image at a point of the last successfully-received byte of data.

15           7. The method of claim 5, wherein said step of dropping the data call occurs  
as a result of interference with the data call.

20           8. The method of claim 1, wherein information is transmitted using TCP/IP  
protocol.

25           9. The method of claim 1, wherein said step of establishing a data call from  
the wireless device to a wireless carrier includes:

30           establishing a data call to a modem pool present at the wireless carrier,  
wherein said spooler is located in proximity to said modem pool.

35           10. The method of claim 9, wherein said spooler is connected to said modem  
pool via a high-speed data network.

40           11. The method of claim 1, wherein said spooler is connected to said target  
computer via a high-speed data network.

45           12. The method of claim 1, further comprising:  
determining at the spooler which digital images are required to be uploaded,  
based, at least in part, on digital images already successfully uploaded.

13. The method of claim 1, further comprising:  
receiving concurrent data calls from a plurality of client devices, such that a  
multitude of connections exist with a multitude of digital images being simultaneously  
transmitted.

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14. The method of claim 1, further comprising:  
logging information characterizing each data call, thereby providing  
information supporting per-image or time-based billing.

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15. The method of claim 14, wherein said step of logging information  
includes:

logging information describing how many images have been transmitted from  
the wireless device.

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16. The method of claim 14, wherein said step of logging information  
includes:

logging information describing the duration of the data call.

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17. The method of claim 1, wherein each digital image is identified by a  
globally-unique identifier.

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18. The method of claim 17, wherein the globally-unique identifier of each  
digital image is based, at least in part, on a device ID of the wireless device where the image  
originated.

19. The method of claim 1, wherein image information is transmitted from  
the spooler to the target computer using XML protocol.

20. The method of claim 1, further comprising:

determining at the spooler which digital images are required to be uploaded, based, at least in part, by querying the target computer for a list of digital images already successfully uploaded.

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21. The method of claim 1, further comprising:

determining at the spooler which digital images are required to be uploaded, based, at least in part, by querying the wireless device for a list of digital images that are desired to be uploaded.

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22. The method of claim 1, wherein the spooler is deployed at a location remote from the wireless carrier.

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23. The method of claim 1, wherein the spooler is deployed at a location proximate to the target computer.

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24. The method of claim 1, wherein said information pertaining to the said digital image includes meta data.

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25. The method of claim 24, wherein said meta data includes one or more e-mail addresses relevant to said digital image.

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26. A system for efficiently transmitting digital images from a wireless device comprising:

a wireless device capable of establishing a data call to a wireless carrier for uploading digital images;

a module directing transmission of information pertaining to a digital image to be uploaded from the wireless device to the wireless carrier, said digital image being arranged into individual compartments capable of separate transmission; and

a spooler for collecting the information being transmitted for said digital image, wherein once the spooler has collected sufficient information to define at least one individual compartment of said digital image, said spooler transmits said at least one compartment from the spooler to a target computer.

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27. The system of claim 26, wherein said wireless device includes a digital camera with wireless connectivity to a cellular phone device.

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28. The system of claim 26, wherein transmission occurs by transmitting individual compartments of the digital image.

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29. The system of claim 26, wherein said target computer includes a server infrastructure that includes at least one Web server.

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30. The system of claim 26, wherein, upon abnormal termination of the data call, the system resumes transmission of said digital image at a later point in time without restarting retransmission of the entire digital image.

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31. The system of claim 30, wherein transmission of said digital image resumes at a point of the last successfully-received byte of data.

32. The system of claim 30, wherein said abnormal termination occurs as a result of interference with the data call.

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33. The system of claim 26, wherein information is transmitted using TCP/IP protocol.

34. The system of claim 26, wherein said wireless carrier includes modem pool, and wherein said spooler is located in proximity to said modem pool.

35. The system of claim 34, wherein said spooler is connected to said modem pool via a high-speed data network.

5           36. The system of claim 26, wherein said spooler is connected to said target computer via a high-speed data network.

10           37. The system of claim 26, further comprising:  
                  a module for determining which digital images are required to be uploaded,  
                  based, at least in part, on digital images already successfully uploaded.

15           38. The system of claim 26, wherein said spooler services multiple concurrent data calls from a plurality of client devices, such that a multitude of connections exist with a multitude of digital images being simultaneously transmitted.

20           39. The system of claim 26, further comprising:  
                  a logger module for logging information characterizing each data call, thereby providing information supporting per-image or time-based billing.

25           40. The system of claim 39, wherein said logger module logs information describing how many images have been transmitted from the wireless device.

41. The system of claim 39, wherein said logger module logs information describing the duration of the data call.

42. The system of claim 26, wherein each digital image is identified by a globally-unique identifier.

43. The system of claim 42, wherein the globally-unique identifier of each digital image is based, at least in part, on a device ID of the wireless device where the image originated.

5           44. The system of claim 26, wherein image information is transmitted from the spooler to the target computer using XML protocol.

10           45. The system of claim 26, further comprising:  
              a module for determining at the spooler which digital images are required to be uploaded, based, at least in part, by querying the target computer for a list of digital images already successfully uploaded.

15           46. The system of claim 26, further comprising:  
              a module for determining at the spooler which digital images are required to be uploaded, based, at least in part, by querying the wireless device for a list of digital images that are desired to be uploaded.

20           47. The system of claim 26, wherein the spooler is deployed at a location remote from the wireless carrier.

25           48. The system of claim 26, wherein the spooler is deployed at a location proximate to the target computer.

49. The system of claim 26, wherein said information pertaining to the said digital image includes meta data.

50. The method of claim 49, wherein said meta data includes one or more e-mail addresses relevant to said digital image.

51. In a wireless environment, a method for efficiently transmitting media content from a wireless device, the method comprising:

establishing a data call from the wireless device to a wireless carrier for uploading selected media content;

5 transmitting information pertaining to the selected media content to be uploaded from the wireless device to the wireless carrier, said selected media content being arranged into individual compartments capable of separate transmission;

collecting, at a spooler, the information being transmitted for said selected media content; and

10 once the spooler has collected sufficient information to define at least one individual compartment of said selected media content, transmitting said at least one compartment from the spooler to a target computer.

15 52. The method of claim 51, wherein said selected media content includes digital images.

53. The method of claim 51, wherein said selected media content includes digital audio.

20 54. The method of claim 51, wherein said selected media content includes digital video.

55. The method of claim 51, wherein said step of establishing a data call from the wireless device to a wireless carrier for uploading selected media content includes:

25 connecting a digital media capturing device with wireless connectivity to a cellular phone device; and

placing a data call through the cellular phone device.

5           56. The method of claim 51, further comprising:  
dropping the data call; and  
upon re-establishing another data call, resuming transmission of said selected media content without retransmitting portions of said selected media content that have already been transmitted.

10           57. The method of claim 56, wherein the wireless device resumes transmission of said selected media content at a point of the last successfully-received byte of data.

15           58. The method of claim 51, further comprising:  
determining at the spooler which portions of said selected media content are required to be uploaded, based, at least in part, on those portions, if any, that have already been successfully uploaded.

20           59. The method of claim 51, further comprising:  
receiving concurrent data calls from a plurality of client devices, such that a multitude of connections exist with a multitude of different media content being simultaneously transmitted.

25           60. The method of claim 51, wherein each object of said selected media content is identified by a globally-unique identifier.

61. The method of claim 60, wherein the globally-unique identifier of each object of said selected media content is based, at least in part, on a device ID of the wireless device where the image originated.

62. The method of claim 51, further comprising:

determining at the spooler which portions of said selected media content are required to be uploaded, based, at least in part, by querying the target computer for a list of all portions, if any, already successfully uploaded.

5        63. The method of claim 51, wherein said step of transmitting information includes:

transmitting an individual compartment of said selected media content.